

REMARKS

Claims 1-16, 29-43, 45 and 46 are pending in the application. Claims 1, 11, 14, 29, 32, 35, 39, 43, 45 and 46 are the independent claims.

The Independent Claims Patentably Define the Invention Over Torii and Gaskins

The Examiner rejected all of the pending independent claims under 35 U.S.C. § 103(a) as being unpatentable over Torii (U.S. Patent No. 5,313,521) in view of Gaskins (U.S. Patent No. 5,606,315). In rejecting the independent claims, the Examiner states that all of the independent claim elements are taught by Torii, except for the encryption of non-sensitive data along with pre-encrypted sensitive data. With respect to this missing limitation, the Examiner states that it would have been obvious "for the encrypted data file of Torii to include non-sensitive data and further encrypted (password protected) sensitive data so that an extra safeguard is implemented for sensitive data that may be stored on the module as taught in Gaskins." Office action, page 3 (citation omitted).

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), not only must the prior art teach or suggest each element of the claim, the prior art must also suggest combining the elements in the manner contemplated by the claim. See *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir. 1990); *In re Bond*, 910 F.2d 831, 834 (Fed. Cir. 1990). The Examiner bears the initial burden of establishing a prima facie case of obviousness. M.P.E.P. § 2142. To establish a prima facie case of obviousness, the Examiner must show that three basic criteria are met. M.P.E.P. § 2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the references' teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference or references, when so modified or combined, must teach or suggest all of the claim limitations. *Id.* Further, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). Finally, in discharging the initial burden of establishing a prima facie case, the Examiner must make particular findings as to establish the motivational element. *In re Kotzab*, 217 F.3d 1365 (Fed. Cir. 2000). That is, the PTO cannot rely on mere conclusory

statements but instead must explain its reasoning why one of ordinary skill would be motivated to select the references and combine them to reach the claimed invention, and must provide evidence to support such a motivation. In re Lee, 277 F.3d 1338 (Fed. Cir. 2002).

Applicants respectfully submit that none of these criteria for obviousness are met for at least the following reasons.

Neither Cited Reference Teaches or Suggests the Claimed Fuzzy Signature Database / Signature Vector

Independent claim 1 recites, in part, a fuzzy signature database including encrypted signature vectors that substantially correspond to encrypted query requests. None of the references cited by the Examiner, taken alone or in combination, teach or suggest such a limitation.

In particular, the Examiner cites the identification signal in Torii for teaching the claimed signature vector language. Office action, page 2. Applicants respectfully traverse the application of Torii to this claim language, because the identification signal in Torii refers to an identification number that is used by Torii's key distribution center to verify a requesting terminal. Torii, col 14, lns 54-55 and 66-67. This identification signal is clearly not a signature vector that substantially corresponds to a query request as claimed in independent claim 1.

Additionally, the Examiner has not cited prior art for teaching or suggesting the *fuzzy* signature database claim element.

Accordingly, for at least these reasons, independent claim 1, along with its dependent claims 2-10, are not rendered obvious under 35 U.S.C. § 103(a).

Neither Cited Reference Teaches or Suggests the Claimed Searching Encrypted Data with an Encrypted Search String

Independent claims 1, 29, 32 and 45 recite, in part, encrypting a search query including sensitive information and locating a record substantially corresponding to the encrypted sensitive information of the encrypted search query. Neither reference teaches or suggests these

limitations, and the Examiner has not cited prior art for teaching or suggesting these claim elements.

Accordingly, for at least these reasons, independent claims 1, 29, 32 and 45, along with their respective dependent claims 2-10, 30-31 and 33-34, are not rendered obvious under 35 U.S.C. § 103(a).

Neither Cited Reference Teaches or Suggests the Claimed Use of Two Keys To Access Sensitive Data

Independent claims 1, 35, 39 and 46 recite, in part, accessing sensitive data by obtaining a first key to decrypt a second key which is used to decrypt the sensitive data. None of the references cited by the Examiner, taken alone or in combination, teach or suggest such a limitation.

In particular, the Examiner cites Torii for teaching the two claimed decryption keys by stating “where the file server decrypts (fourth key) the encrypted file key (third key) and then transmits it back to the first terminal with an answer signal.” Office action, page 3. Not only does this citation not read on the claimed language, which requires the “fourth key” to decrypt the “third key” *which is used to decrypt* the sensitive data, it is a misstatement of Torii’s disclosure. Torii’s file server decrypts a ciphertext signal using a key (“first encryption-key signal sa”), and then generates in a separate process another key (the “rf” session key) to be sent back to the terminal. Torii, col 15, lns 6-14. The “rf” key is clearly not decrypted by the “sa” key, and the “rf” key is not used to decrypt sensitive data. To the contrary, the “rf” key is ultimately used to *encrypt* data for transmission. Torii, col 15, lns 36-38.

Accordingly, for at least these reasons, independent claims 1, 35, 39 and 46, along with their respective dependent claims 2-10, 36-38 and 40-42, are not rendered obvious under 35 U.S.C. § 103(a).

Neither Cited Reference Teaches or Suggests the Claimed Use of Two Keys To Secure Sensitive Data

Independent claims 1, 11, 14 and 43 recite, in part, securing sensitive data by using a first key to encrypt sensitive data and using a second key to encrypt non-sensitive data along with the pre-encrypted sensitive data. None of the references cited by the Examiner, taken alone or in combination, teach or suggest such a limitation.

As mentioned above, the Examiner cites Torii in combination with Gaskins for teaching this claim language because “[i]t would have been obvious . . . for the encrypted data file of Torii to include non-sensitive data and further encrypted (password protected) sensitive data so that an extra safeguard is implemented for sensitive data that may be stored on the module as taught in Gaskins (Col. 1, lines 24-36).” Office action, page 3.

Foremost, this claim language requires non-sensitive data to be *encrypted* twice, not encrypted once and password protected once as suggested by the Examiner’s combination of the references. For this reason alone the cited references do not teach or suggest this claim language.

Further, although the Examiner rightly concedes that this claimed language is not taught by either Torii or Gaskin, the Examiner asserts that the claimed language is suggested by both references based on a cited teaching from Gaskins. This cited teaching in Gaskins (col.1, lns 24-36) does not support the Examiner’s suggestion, however, because the teaching merely states that it is desirable to safeguard information, and that a generally known password approach may be used to secure Gaskins’ calibration data. There is nothing in this cited teaching that suggests to one of skill in the art that an *extra* safeguard is desired on top of password protection.

Thus, the Examiner’s conclusory statement that an “extra” safeguard would be desired is improper because the Examiner has not provided any support in the references that teaches or suggests a desire for an extra safeguard above and beyond that which is disclosed. The only suggestion for the asserted combination is the impermissible use of hindsight by the Examiner to reconstruct the claimed invention.

If the Examiner is impliedly taking official notice of the suggestion of a desired extra safeguard, then Applicants respectfully traverse this implied taking and officially request that the Examiner provide documentary evidence of this suggestion in the next action if this rejection is to be maintained. M.P.E.P. § 2144.03.

Accordingly, for at least these reasons, independent claims 1, 11, 14 and 43, along with their respective dependent claims 2-10, 12-13 and 15-16 are not rendered obvious under 35 U.S.C. § 103(a).

The Examiner's Stated Motivation Fails To Support the Combination of References

In addition, in rejecting all of the currently pending independent claims (1, 11, 14, 29, 32, 35, 39, 43, 45 and 46), the Examiner does not provide a proper motivation to combine Gaskins with Torii. One of skill in the art of communications systems using key-based encryption protocols as disclosed by Torii would not look to the unrelated area of simple engine control modules that require passwords as disclosed by Gaskins to arrive at the claimed invention. Besides the fact that the Torii and Gaskins pertain to unrelated technological fields and applications, Torii is directed to a complicated encryption protocol that is designed to enforce secure and authenticated transmissions. It would be contrary to Torii's protocol for Torii to distinguish between sensitive and non-sensitive data, and password type security is already built into Torii's scheme (e.g., encryption keys can be viewed as types of passwords). Thus, one of skill in the art would not be motivated to combine Gaskins with Torii.

Accordingly, for at least these reasons, all of the independent claims (1, 11, 14, 29, 32, 35, 39, 43, 45 and 46), along with their respective dependent claims (2-10, 12-13, 15-16, 30-31, 33-34, 36-38 and 40-42) are not rendered obvious under 35 U.S.C. § 103(a).

CONCLUSION

It is respectfully submitted that, in view of the foregoing remarks, the application is in clear condition for allowance. Issuance of a Notice of Allowance is earnestly solicited.

Although not believed necessary, the Office is hereby authorized to charge any fees required under 37 C.F.R. § 1.16 or § 1.17 or credit any overpayments to Deposit Account No. 11-0600. A copy of this page is provided for this purpose.

The Examiner is invited to contact the undersigned at 202-220-4200 to discuss any matter regarding this application.

Respectfully submitted,
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Dated: September 22, 2003

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